

Amendments to the Claims

The following listing of claims will replace all prior versions, and listings of claims in the original application.

1-8. (Cancelled)

9. (Currently Amended) A composition for use in reverse transcription of a nucleic acid molecule, said composition comprising ~~one or more inhibitors and~~ dNTPs in excess of one or more degradation components, thereby preventing, reducing, substantially reducing, or eliminating degradation of nucleic acid templates during nucleic acid synthesis.

10. (Currently Amended) The composition of claim & 9, further comprising one or more polypeptides having reverse transcriptase activity.

11. (Currently Amended) The composition of claim & 10, wherein said polypeptides are reduced or substantially reduced or lacking in RNase H activity.

12. (Currently Amended) The composition of claim & 10, wherein said polypeptides are selected from the group comprising M-MLV reverse transcriptase, ASV reverse transcriptase, HIV reverse transcriptase, Avian Sarcoma-Leukosis Virus (ASLV) reverse transcriptase, Rous Sarcoma Virus (RSV) reverse transcriptase, Avian Myeloblastosis Virus (AMV) reverse transcriptase, Avian Erythroblastosis Virus (AEV) Helper Virus MCAV reverse transcriptase, Avian Myelocytomatosis Virus MC29 Helper Virus MCAV reverse transcriptase, Avian Reticuloendotheliosis Virus (REV-T) Helper Virus REVA reverse transcriptase, Avian Sarcoma Virus UR2 Helper Virus UR2AV reverse transcriptase, Avian Sarcoma Virus Y73 Helper Virus YAV reverse transcriptase, Rous Associated Virus (RAV) reverse transcriptase, and

Myeloblastosis Associated Virus (MAV) reverse transcriptase and derivatives, variants, or fragments having reverse transcriptase activity, or mutants thereof.

13. (Currently Amended) A method for reverse transcription of one or more nucleic acid molecules comprising:

(a) mixing one or more ~~nucleic acid~~ RNA templates, ~~with one or more inhibitors and~~ one or more polypeptides having reverse transcriptase activity, and dNTPs in excess of one or more degradation components; and

(b) incubating mixture of (a) under conditions sufficient to make one or more first ~~nucleic acid~~ DNA molecules complementary to all or a portion of said one or more ~~nucleic acid~~ RNA templates.

14. (Currently Amended) The method of claim 14 13, wherein said ~~nucleic acid~~ RNA template is a messenger RNA molecule, a poly A+ RNA molecule, or a population of mRNA molecules.

15. (Currently Amended) The method of claim 14 13, wherein said mixture is incubated at temperatures ranging from 40°C to 75°C.

16. (Currently Amended) The method of claim 14 13, said method further comprising incubating said one or more first DNA molecules under conditions sufficient to make one or more second DNA molecules complementary to all or a portion of said one or more first DNA molecules.

17. (Currently Amended) A cDNA molecule made according to the method of claim 14 13.

18. (Cancelled)

19. (Currently Amended) A method for amplifying one or more nucleic acid molecules, said method comprising:

(a) mixing one or more ~~nucleic acid~~ RNA templates, ~~with one or more inhibitors and~~ one or more polypeptides having reverse transcriptase activity, ~~and one or more DNA polymerases, and dNTPs in excess of one or more degradation components;~~ and

(b) incubating mixture of (a) under conditions sufficient to amplify one or more nucleic acid molecules complementary to all or a portion of said one or more ~~nucleic acid~~ RNA templates.

20. (Currently Amended) A nucleic acid molecule amplified according to the method of claim ~~20~~ 19.

21. (Currently amended) A kit for use in reverse transcription, amplification, ~~or sequencing~~ of a nucleic acid molecule, said kit comprising a reverse transcriptase and dNTPs in excess of one or more inhibitors degradation components.

22. (Currentlty amended) The kit of claim 21, wherein said degradation component is MgCl₂ ~~kit further comprising one or more components selected from the group one or more nucleotides, one or more DNA polymerases, one or more buffers or buffering salts, one or more primers, one or more host cells, and one or more terminating agents.~~

23. (Cancelled)

24. (Cancelled)

25. (New) The composition of claim 9, wherein said degradation component is Mg²⁺ or a salt thereof.

26. (New) The composition of claim 9, wherein said dNTPs are in excess of one or more degradation components by 1mM.

